

Notice of Allowability

Application No.

10/527,123

Examiner

Eric Blatt

Applicant(s)

PARK ET AL.

Art Unit

3709

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to Ex. amend (8-14-2007).
2. ☒ The allowed claim(s) is/are 1-11.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.


Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date 3-8-2005, 7-14-2005
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☒ Interview Summary (PTO-413),
Paper No./Mail Date 7-25-2007
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____


MATTHEW S. GART
PRIMARY EXAMINER
TECHNOLOGY CENTER 3600

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Ronald Santucci (Ph. 212-588-0900) on July 25, 2007.

The application has been amended as follows:

In the Claims

Claim 6 has been changed to read as follows:

6. (Currently amended) A catheter apparatus for percutaneous coronary intervention capable of accurately positioning stent and balloon in a desired position, comprising:

an introducer set 130 introduced to an opening of the human artery;

a guiding catheter 140 introduced through the introducer set 130 and into the artery so as to extend a predetermined distance into the artery;

a Y-connector 110 having a main tube 111 and a side tube 112 which branches off from the main tube 111, the Y-connector being coupled with the guiding catheter 130;

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a guidewire 160 introduced into the main tube 111 and the guiding catheter 140;

a balloon catheter 150 introduced into the guiding catheter 140, having a balloon at the distal end thereof and a passage formed longitudinally through the balloon catheter, the passage providing a route for the guidewire 160;

a first bolt 195 fixedly coupled with the main tube 111 and having a screw portion on its circumferential surface, the screw portion wound in a predetermined direction;

a second bolt 196 having a screw portion on its circumferential surface, the screw portion of the second bolt wound in an opposite direction to the screw portion of the first bolt 195, an end portion of the second bolt 196 being coupled with an end portion of the first bolt 195;

a minute adjustment nut 193 having two oppositely wound screw portions and being concurrently coupled with the first and second bolts 195 and 196, one screw portion engaging with the first bolt 195 and wound in the same way as the screw thread of the first bolt 195, and the other screw portion engaging with the second bolt 196 and wound in the same way as the screw thread of the second bolt 196; and

a clamping portion for holding the balloon catheter 150 passing through the minute adjustment nut 193 firmly in position.

REASONS FOR ALLOWANCE

The following is an examiner's statement of reasons for allowance:

Regarding Independent Claim 1

The prior art of record neither anticipates nor renders obvious a catheter apparatus for percutaneous coronary intervention capable of accurately positioning stent and balloon in a desired position comprising, *inter alia*, a minute adjustment portion comprising a nut and a bolt engaging with a screw thread formed on the inner walls of the nut and rotating so as to move backward or forward through the nut, the bolt having a through hole formed longitudinally thereinside so that a balloon catheter passes through the hole, and a combining frame having two legs, one leg being coupled with the circumferential surface of a main tube of a Y-connector and the other leg being coupled with the circumferential surface of the nut.

The most remarkable prior art of record is to Lindenberg et al. (US 5,433,723). Lindenberg discloses an apparatus capable of slowly withdrawing a catheter within a body lumen by rotating a nut that is engaged with a bolt. Lindenberg does not disclose a bolt having a through hole formed longitudinally thereinside so that a balloon catheter passes through the hole, and additionally does not disclose a combining frame having two legs, one leg being coupled with the circumferential surface of a main tube of a Y-connector and the other leg being coupled with the circumferential surface of the nut. None of the prior art of

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record remedies the deficiencies found in Lindenberg. Furthermore, neither the prior art, the nature of the problem, nor knowledge of a person having ordinary skill in the art, provide any reasonable rationale to combine prior art teachings.

Regarding Independent Claim 6

The prior art of record neither anticipates nor renders obvious a catheter apparatus for percutaneous coronary intervention capable of accurately positioning stent and balloon in a desired position comprising, *inter alia*, a first bolt fixedly coupled with a main tube of a Y-connector and having a screw portion on its circumferential surface, the screw portion wound in a predetermined direction, a second bolt having a screw portion on its circumferential surface, the screw portion of the second bolt wound in an opposite direction to the screw portion of the first bolt, an end portion of the second bolt being coupled with an end portion of the first bolt, a minute adjustment nut having two oppositely wound screw portions and being concurrently coupled with the first and second bolts and, one screw portion engaging with the first bolt and wound in the same way as the screw thread of the first bolt, and the other screw portion engaging with the second bolt and wound in the same way as the screw thread of the second bolt, and the balloon catheter passing through the minute adjustment nut firmly in position.

The most remarkable prior art of record is to Lindenberg et al. (US 5,433,723). Lindenberg discloses an apparatus capable of slowly withdrawing a

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catheter within a body lumen by rotating a nut that is engaged with a first bolt.

Lindenberg does not disclose a first bolt fixedly coupled with a main tube of a Y-connector, a second bolt wound in an opposite direction to the screw portion of the first bolt, or a balloon catheter passing through a minute adjustment nut.

None of the prior art of record remedies the deficiencies found in Lindenberg.

Furthermore, neither the prior art, the nature of the problem, nor knowledge of a person having ordinary skill in the art, provide any reasonable rationale to combine prior art teachings.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Response to Amendment

The preliminary amendment to the specification was received on 3-8-2005 and entered.

Drawings

The drawings were received on 3-8-2005. The Examiner accepts these drawings.

Information Disclosure Statement

The Information Disclosure Statements received on March 8, 2005 and July 14, 2005 are acknowledged, and their contents were considered.

CONCLUSION

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eric Blatt whose telephone number is (571) 272-9735. The examiner can normally be reached on Monday to Friday, 7:30 A.M. to 5:00 P.M. EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Khoi Tran can be reached on (571) 272-6919. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Eric Blatt

(571) 272-9735


MATTHEW S. GART
PRIMARY EXAMINER
TECHNOLOGY CENTER 3600